

PATENT COOPERATION TREATY

From the
INTERNATIONAL SEARCHING AUTHORITY

To:

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PCT

WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY

(PCT Rule 43bis.1)

Date of mailing
(day/month/year)

16-03-2005

Applicant's or agent's file reference

BP110563/TN

FOR FURTHER ACTION

See paragraph 2 below

International application No.

PCT/FI2004/050177

International filing date (day/month/year)

24-11-2004

Priority date (day/month/year)

10-12-2003

International Patent Classification (IPC) or both national classification and IPC

H01L23/60 // H05F3/02

Applicant

Nokia Corporation et al

1. This opinion contains indications relating to the following items:

- ☒ Box No. I Basis of the opinion
- ☐ Box No. II Priority
- ☐ Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- ☐ Box No. IV Lack of unity of invention
- ☒ Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- ☐ Box No. VI Certain documents cited
- ☐ Box No. VII Certain defects in the international application
- ☐ Box No. VIII Certain observations on the international application

2. **FURTHER ACTION**

If a demand for international preliminary examination is made, this opinion will be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA") except that this does not apply where the applicant chooses an Authority other than this one to be IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1bis(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of 3 months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.

For further opinions, see Form PCT/ISA/220.

3. For further details, see notes to Form PCT/ISA/220.

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**WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY**

International application No.

PCT/FI2004/050177

Box No. I Basis of this opinion

1. With regard to the **language**, this opinion has been established on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.

☐ This opinion has been established on the basis of a translation from the original language into the following language, _____, which is the language of a translation furnished for the purposes of international search (under Rules 12.3 and 23.1(b)).

2. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application and necessary to the claimed invention, this opinion has been established on the basis of:

a. type of material

☐ a sequence listing

☐ table(s) related to the sequence listing

b. format of material

☐ in written format

☐ in computer readable form

c. time of filing/furnishing

☐ contained in the international application as filed.

☐ filed together with the international application in computer readable form.

☐ furnished subsequently to this Authority for the purposes of search.

3. ☐ In addition, in the case that more than one version or copy of a sequence listing and/or table relating thereto has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.

4. Additional comments:

10/582657

AP3 Rec'd PCT/PTO 12 JUN 2006

WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY

International application No.

PCT/FI2004/050177

Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Claims	<u>1-20</u>	YES
	Claims		NO
Inventive step (IS)	Claims		YES
	Claims	<u>1-20</u>	NO
Industrial applicability (IA)	Claims	<u>1-20</u>	YES
	Claims		NO

2. Citations and explanations:

The claimed invention relates to protection of light emitting diodes (LED) from electrostatic discharges.

Documents cited in the International Search Report:

D1: US 6536913 B1

D2: JP 20011196638 (Patent Abstracts of Japan)

D1 discloses a display apparatus including a matrix of LED's and a grounded electrically conductive member, which is arranged to protect the LED's from electrostatic discharges (see claim 1).

D2 shows an LED surrounded by a conductive loop (5), which is intended to prevent damage due to electrostatic discharges.

The invention according to independent claims 1, 7 and 15 differs somewhat from the technique disclosed in D1. The difference is that the independent claims define that a conductive material is induced on the surface of a photoconductor, while D1 is provided with an electrically conductive member. The description of the current application does not indicate that this particular difference gives any surprising contribution to the solution of problems relating to electrostatic discharges. For this reason, the invention according to independent claims 1, 7 and 15 is not considered to involve an inventive step. Neither are the further definitions added in the remaining

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Supplemental Box

In case the space in any of the preceding boxes is not sufficient.

Continuation of: BOX V

claims sufficient to cure the lack of inventive step.

The invention according to claims 1-20 is not considered to involve an inventive step. The claimed invention is industrially applicable.